

# SEQUENCE LISTING

<110> Aventis CropScience GmbH

<120> Promoters for gene expression in caryopses of plants

<130> AGR 2000/M 215

<140> DE 100 32 379.0

<141> 2000-07-06

<160> 16

<170> PatentIn Ver. 2.1

<210> 1

<211> 5058

<212> DNA

<213> Triticum aestivum

<400> 1

tctagagagg	tcacccgcta	gtctatccta	agcgtgaagg	ggatcatgagc	caatcactct	60
aagcactcct	gcacgtggcg	cgactggctg	gggaccaagc	ccacctctat	atacacagca	120
ggcatgccgc	tcaccccaac	aatcagcccc	cagtctgtac	tgtgacatca	ggcagagctt	180
tcgggaggaa	ctgacgacgc	tgaggggccc	atacaccata	atcccacggg	gtgattagt	240
tgtatatgcc	agtgacagtc	tcagatcaaa	tactcaaate	ttgttgagcg	tggtattaag	300
aaataacctt	ggacatcgac	cagggcccag	gccacttct	ctcctaggtg	gtctctacct	360
gccttgctgt	tcggccacgt	tgaatcactc	gaggtgtcg	ggaacccagg	cctatcacta	420
cctagatggt	accatctatt	ccttcagccc	ttagttcgaa	cattatcata	agtattacgt	480
tattatatag	tatatctgtg	atcattggcc	aaagagacca	cggctcaata	atgtagcaat	540
gcaaacggtg	agactctagc	agacaactaa	catttattta	ctttgcagcg	aagcacgggt	600
gattcaagat	agttctaatt	tttttaaaga	cggttcta	ttttttttt	acggcaacac	660
ggttctaatt	ctaccgttgc	aacgcacaag	gagatgtgct	ggtctcta	aatgtatgta	720
ggagtttttt	gttgcatgga	tcggacgggt	gaagatcgta	atataagtca	cctttgacgg	780
tcgggaaaa	ggcgggtatt	tctgtgtttt	cagacggctg	acgcctggca	atcaccccaa	840
aaatatTTTT	gtatgcgagg	aggatcacct	gccgcgggct	gacatccgcc	acatcagtag	900
gttaggccaa	ctcctccgct	tgccaccgaa	ttaaagctcg	tgaaaagttc	ccctcccgc	960
gcttcgcagg	taggtagggtg	catccatccc	caactccccg	gccgtgccgc	acacccccat	1020
ctatatatgc	aaatccagtc	cattcctgat	caaccaggac	ttgattagta	gagcaagagg	1080
cctgaacaag	cacgcgctcg	cagatcatcg	acatgggttg	tgagaggacg	ccgctggccg	1140
ttgctctggc	actggccctg	ctcctggggc	tcgcccacgg	cgacgtgggtg	cagttcatct	1200
tcggcgactc	gctgtcggac	gtgggcaaca	acaactacct	gaccaagagc	ctcgcgcgcg	1260
cggcgctgcc	gtggtacggc	atcgacttcg	gcagcggcat	gcccacggc	aggttctgca	1320
acggccgcac	cgtcgcggac	atcatcggcg	acaagatggg	cctcccgcgc	ccgcccgcgt	1380
tcctggaccc	gtccgtggac	gagaccgtca	tcgccaagag	cggcctcaac	tacgcgtccg	1440
gcggcgggcg	catacctcaac	gagacctcgt	ccctcttcgt	aagacacca	tccatcactt	1500
caccaacttc	tcgtagctag	acagcatggt	agtatcatga	gacatgaacg	ctccggttcg	1560
atcatcgc	ctgactgaga	cccattggcg	atgcatttgc	agatccagag	gttctcgcgt	1620
tacaagcaga	tcgagctggt	ccaggggacg	caggcgttca	tgcgggagaa	gatcggggcg	1680
gcggcgggcg	acaagctggt	cggcgaggcc	tactacgtgg	tggccatggg	cgccaacgac	1740
ttcatcaaca	actacctgct	ccccgtctac	tcgactcgt	ggacctacaa	cggcgacacc	1800
ttcgtcaagt	acatggtcac	caccctggag	gcccagctcc	ggctcctgca	cgggctgggc	1860
gcgcgcggg	tcaccttctt	cgggctgggg	cccatgggct	gcaccccgt	gcagcggctc	1920
ctgcagaggt	cctccacggc	gtgccaggag	tccaccaaca	agctcgccct	cagcttcaac	1980
aagcaggccg	gcgcgggtgat	caggagctg	cgggcgtcgc	tgcccaacgc	cacgttccag	2040
ttcggggacg	tctacgacta	cttcaggagc	atcatcgacc	gccccacat	gcacggcttc	2100
aacaactccc	acgcgccctg	ctgcacgctc	ggcaagggtg	ggccgaccct	gacgtgcacc	2160
ccgctctcca	cgctctgcaa	ggaccgcagc	aagtacgtgt	tctgggacga	gtaccacccc	2220
accgacaggg	ccaacgagct	catcgcgctc	gagacgctca	agcggctcaa	catcaccgtc	2280

09899595 "070501

gttgccaaca ccacctccag ctagcctgcc tgcctgccac cgacgcgcgc caccaaaatg 2340  
 cgtacgcttc gacatgcatg ggcgctgctg ctgtgtgttg tcttaattat actgcgggtg 2400  
 cttcgattgt aaccaaaagta ggatgatcga aaattctagg atgatgtcca agaaatggga 2460  
 tggagaatag atgcatgtac gtgtcctgga tatgaaattt ttttgagtat gagagaacag 2520  
 cataccagga tcatgcatct atcttaaadc tcaagaggcc actattaaga cgttgatgtt 2580  
 taagacgggtg atgttctatt tgcattgtgaa atttcaagtt caaagacggg accattttatg 2640  
 agctatggaa tcagccatga atagtgtgtt ttactgttga cactattcat tgctgctttt 2700  
 gtcttttggg aatgtgtttg aacttggaag tttcacatac taatagaaca tcacactctt 2760  
 aagacgtaat atttctttga gattttattt ttgaaacttc gcctgaaggg tgctgatgtg 2820  
 cccgctattc atctaggaga ctaggaaaat atatgcaaaa aaattcatac atatttataa 2880  
 atgataaata tgtatagaga aaatgtttat caactataga aaaatatatg caaaaaatat 2940  
 aaatatgtat gaattttttt agcaagtatt taaatctagc atttgaaaga aaaataaaca 3000  
 agtattagaa aaatgtttaa cgtgtataga aaaatgttac catgtaatta aaaattgtat 3060  
 aaaattatca tgtattttta aaaaaataac caagcattta aaaacaaata tttaaaaatg 3120  
 ttaataaaag atttgaaaaa ttctaaacgt gtatacaaaa atgttgacca tgtattaaaa 3180  
 aatgttaatc ttgtatttaa aaatgtaatc aagcatttag aaaaacagtt aaattgtata 3240  
 gaaatgtacc cagaaaatct tgatattata tttcaaaaat gtaatcaagc atttgaaaaa 3300  
 tatttttaaaa atgtgtatag aaaaaatgtt aaccatgtat ttaaaaaatt ttaaaactgt 3360  
 atttgaaaca tgttaatcat gtattagata tataccaaat atgtatgtaa aataacaatg 3420  
 aaaatccaag ggaacgaaa gaaaaacaaa tgaaaacggg aaaaaaaca aaaatgaagg 3480  
 aaaaaaaaaga aaaaacattg aaaaccaaga aagaaacaaa gagaaccgga gaataacaaa 3540  
 caaaagggaa agaaaagggtg aaaaaactag taaaaacaag aaacaaagaa aaaaggatga 3600  
 caaacaagga aaaaaattaa aaatccggaa aggcaacggg aagacgactc ttttccttca 3660  
 agttggtagc gccctaccag ggtaacacga acttgacgat gactttatgg ctaggagagc 3720  
 tacgctggaa cgaggagatc cggaccaaaac catgtgcgct acaaaagtgt attattattt 3780  
 tttgcaaaaa tgatccgaat ctattatcaa aattcagcga aatacaaaaac atctcgaaca 3840  
 taatgaacaa tacattgaga ttccaggacc ccaacaacc actactgccg cgaagaaaaa 3900  
 aggattggga ggacagaaat tatcctaacc acgttcgtcc tcggttgttg gtctcatcgc 3960  
 gcgctaaaca acctggacaa cagaaaaggc aaagcagtggt cctccgctcc gcagcaaga 4020  
 agacaaatcg tcaattgtca gaggccgtca cccaagcaag caaactgcaa agcttggtcg 4080  
 tttggtttat cccgtagtac gcgccaacgc atgtgcgcga ccgcgtttgc ggtggagagc 4140  
 gcaggcatgc atcaaccaac aaacgaaaca gtgcagttgc ttacagtgtt ccatccctcc 4200  
 aaaaaaaaaa gttgcagtg tctatctatc tatctacaca atcaacgcgg gcctcctgct 4260  
 ccttcgcgcg aagcccgtt ccgtcctcag tcttcacgtg gattctgcaa cctccttcca 4320  
 gcagcttgtc accacggacg ctctcctcgt cgctgctcgc gtggcaccgg ccccgctttc 4380  
 cagcgtgctc cgcgcgggccc gcggccgcaa atcgcagacc caacacgcca cccgccaggg 4440  
 ggccgttcgt acgtacccgc ccctcgtgta aagccgcgcg cgtcgtcgcc gtcccccgct 4500  
 cgcggccatt tccccggcct gaccccgctg gtttacccca cagagcacac tccagtcag 4560  
 tccagcccac tgcgcgcgcg ctactcccca ctcccgtgc caccacctcc gcctgcgcgc 4620  
 cgctctgggc ggaggaccaa cccgcgcgac gtaccatcgc ccgccccgat cccggccgcc 4680  
 gccatgtcgt cggcggtgcg gtccgcgcgc tcttctctcg cgctgcctc cgctcccc 4740  
 gggagatcac gcaggcgggc gaggtgagc gcgcgcgcac cccacgcgcg ggccggcagg 4800  
 ctgcactggc cgcggtggcc gccgcagcgc acggctcgcg acggagggtg ggccgcgcgc 4860  
 gccgcgggga agaaggacgc gaggtcgac gacgacgcgc cgtccgcgag gcagccccgc 4920  
 gcacgcgcgc gtggcgccgc caccaaggta gttggttcgt tatgacttgc tgtatggcgc 4980  
 gtgcgcctcg agatcagctc acgaattgtt tctacaaaac gcacgcgctc gtgtgcagg 5040  
 cgcggagcgc agggatcc 5058

<210> 2

<211> 844

<212> DNA

<213> *Triticum aestivum*

<400> 2

tctagagagg tcacccgtca gtctatccta agcgtgaagg ggcatgagc caatcactct 60  
 aagcactcct gcacgtggcg cgactggctg gggaccaagc ccacctctat atacacagca 120  
 ggcattgccg tcaccccaac aatcagcccg cagtctgtac tgtgacatca ggcagagctt 180  
 tcgggaggaa ctgacgacgc tgaggggccc atacaccata atccacggg gtgattagt 240

tgtatatgcc	agtgacagtc	tcagatcaaa	tactcaaate	ttgttgagcg	tgttattaag	300
aaataacctt	ggacatcgac	cagggcccag	gccacttct	ctcctaggtg	gtctctacct	360
gccttgctgt	tccgccacgt	tgaatcactc	gaggctgtcg	ggaaccacag	cctatcacta	420
cctagatggt	accatctatt	ccttcagccc	ttagttcgaa	cattatcata	agtattacgt	480
tattatatag	tatatctgtg	atcattggcc	aaagagacca	cggctcaata	atgtagcaat	540
gcaaacgggtg	agactctagc	agacaactaa	catttattta	ctttgcagcg	aagcacgggt	600
gattcaagat	agttctaatt	tttttaaaga	cggttctaata	tctttttttt	acggcaacac	660
ggttctaatt	ctaccgttgc	aacgcacaag	gagatgtgct	ggtctctaac	aatgtatgta	720
ggagtttttt	gttgcatgga	tcggacgggt	gaagatcgta	atataagtca	ccttttgacgg	780
tcgggaaaat	ggcggttatt	tctgtgtttt	cagacggctg	acgcctggca	atcaccccaa	840
aaat						844

<210> 3  
 <211> 880  
 <212> DNA  
 <213> Triticum aestivum

<400> 3						
atttttgtat	gcgaggagga	tcacctgccg	cgggctgaca	tccgccacat	cagtaggtta	60
ggccaactcc	tccgcttgcc	accgaattaa	gtcgcgtgaa	aagttccctt	cccgaacgctt	120
cgcaggtagg	taggtgcac	catccccaac	tcccgcggcg	tgccgcacac	ccccatctat	180
atatgcaaat	ccagtccatt	cctgatcaac	caggacttga	ttagtagagc	aagaggcctg	240
aacaagcacg	cgctcgcaga	tcatcgacat	gggttgtag	aggacgcgcg	tgcccggttc	300
tctggcactg	gccctgctcc	tgggcctcgc	ccacggcgac	gtggtgcagt	tcatcttcgg	360
cgactcgtg	tcggacgtgg	gcaacaacaa	ctacctgacc	aagagcctcg	cgcgcgcggc	420
gctgccgtgg	tacggcatcg	acttcggcag	cggcatgcc	aacggcagg	tctgcaacgg	480
ccgcaccgtc	gcgacatca	tcggcgacaa	gatgggcctc	ccgcgcgcgc	ccgcgttcct	540
ggaccgcgtc	gtggacgaga	ccgtcatcgc	caagagcggc	ctcaactacg	cgcccgcgcg	600
cggcggcac	ctcaacgaga	cctcgtccct	cttcgtaaga	cacccatcca	tcaactcacc	660
aacttctcgt	agctagacag	catggtagta	tcatgagaca	tgaacgctcc	ggttcgatca	720
tcgcatctga	ctgagaccca	tgccgcgatgc	atttgcagat	ccagagggtc	tcgctgtaca	780
agcagatcga	gctgttccag	gggacgcagg	cgttcatgcg	ggagaagatc	gggcggggcg	840
cggcggacaa	gctgttcggc	gaggcctact	acgtggtggc			880

<210> 4  
 <211> 516  
 <212> DNA  
 <213> Triticum aestivum

<400> 4						
catgggcgcc	aacgacttca	tcaacaacta	cctgctcccc	gtctactccg	actcgtggac	60
ctacaacggc	gacaccttcg	tcaagtacat	ggtcaccacc	ctggaggccc	agctccggct	120
cctgcacggg	ctgggcgcgc	gccgggtcac	cttcttcggg	ctggggccca	tgggctgcat	180
cccgtgcag	cggtcctgc	agaggtcctc	cacggcgtgc	caggagtcca	ccaacaagct	240
cgccctcagc	ttcaacaagc	aggccggcgc	ggtgatcagg	gagctggcgg	cgctcgtgcc	300
caacgccacg	ttccagttcg	gggacgtcta	cgactacttc	caggacatca	tcgaccgccc	360
ctacatgcac	ggcttcaaca	actcccacgc	gccctgctgc	acgctcggca	aggtgcggcc	420
gaccctgacg	tgacccccgc	tctccacgct	ctgcaaggac	cgcagcaagt	acgtgttctg	480
ggacgagtag	cacccccaccg	acagggccaa	cgagct			516

<210> 5  
 <211> 502  
 <212> DNA  
 <213> Triticum aestivum

<400> 5

```

catcgcgctc gagacgctca agcggctcaa catcacgctc gttgccaaca ccacctccag 60
ctagcctgcc tgccctgccac cgacgccgcc caccaaaatg cgtacgcttc gacatgcatg 120
ggcgctgctg ctgtgtgttg tcttaattat actgcgggtg cttcgattgt aaccaaaagta 180
ggatgatcga aaattctagg atgatgtcca agaaatggga tggagaatag atgcatgtac 240
gtgtcctgga tatgaaattt ttttgagtat gagagaacag cataccagga tcatgcatct 300
atcttaaadc tcaagaggcc actattaaga cgttgatgtt taagacggtg atgttctatt 360
tgcattgtgaa atttcaagtt caaagacggt accatttatg agctatggaa tcagccatga 420
atagtgtatg ttactgttga cactattcat tgctgctttt gtcttttggg aatgtgtttg 480
aacttggaag tttcacatac ta 502

```

```

<210> 6
<211> 261
<212> DNA
<213> Triticum aestivum

```

```

<400> 6
atagaacatc acactcttaa gacgtaatat ttctttgaga ttttattttt gaaacttcgc 60
ctgaagggtg ctgatgtgcc cgctattcat ctaggagact aggaaaatat atgcaaaaaa 120
attcatacat atttaaaaat gataaatatg tatagagaaa atgtttatca actatagaaa 180
aatatatgca aaaaatataa atatgtatga atttttttag caagtattta aatctagcat 240
ttgaaagaaa aataaacaag t 261

```

```

<210> 7
<211> 327
<212> DNA
<213> Triticum aestivum

```

```

<400> 7
attagaaaaa tgttaaacgt gtatagaaaa atgtttaccat gtaattaaaa attgtataaa 60
attatcatgt attttttaaa aaataaccaa gcattttaaa acaaatattt aaaaatgtta 120
ataaaggatt tgaaaaattc taaacgtgta taaaaaaatg ttgacctatg attaaaaaat 180
gttaattctg tattttaaaa tgtaatcaag catttagaaa aacagtttaa ttgtatagaa 240
atgtaccag aaaatcttga tattatatat caaaaatgta atcaagcatt tgaaaaatat 300
tttaaaaatg tgtatagaaa aaatggt 327

```

```

<210> 8
<211> 236
<212> DNA
<213> Triticum aestivum

```

```

<400> 8
aaccatgtat ttaaaaaatt ttaaacttgt atttgaaaca tgttaatcat gtattagata 60
tataccaaat atgtatgtaa aataacaatg aaaatccaag ggaaacgaaa gaaaaacaaa 120
tgaaaacggg aaaaaaacaa aaaatgaagg aaaaaaaaga aaaaacattg aaaaccaaga 180
aagaaacaaa gagaaccgga gaataacaaa caaaaggga agaaaagggtg aaaaaa 236

```

```

<210> 9
<211> 504
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: -

```

```

<400> 9

```

09699595 070501

```

ctagtaaaaa caagaaacaa agaaaaaagg atgacaaaca aggaaaaaaa ttaaaaatcc 60
ggaaaggcaa cggtaagacg actcttttcc ttcaagttgg tagcgcccta ccagggtaac 120
acgaacttga cgatgacttt atggctagga gagctacgct ggaacgagga gatccggacc 180
aaaccatgtg cgctacaaaa gtgtattatt attttttgca aaaatgatcc gaatctatta 240
tcaaaattca gcgaaatata aaacatctcg aacataatga acaatacatt gagattccag 300
gaccccaaac aaccactact gccgcgaaga aaaaaggatt gggaggacag aaattatcct 360
aaccacgttc gtctcgtgtt gttggtctca tcgcgcgcta aacaacctgg acaacagaaa 420
aggcaaagca gtgtctctcg ctccgcagca aagaagacaa atcgtcactt gtcagaggcc 480
gtcacccaag caagcaaact gcaa
504

```

<210> 10  
 <211> 441  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: -

```

<400> 10
agcttggttcg tttggtttat cccgtagtac gcgccaacgc atgtgccgca ccgcgtttgc 60
ggtggagagc gcaggcatgc atcaaccaac aaacgaaaca gtgcagttgc ttacagtgtc 120
ccatccctcc aaaaaaaaaa gttgcagtgc tctatctatc tatctacaca atcaacgcgg 180
gcctcctgct ccttcgcccgc aagccccgtt ccgtcctcag tcttcacgtg gattctgcaa 240
cctccttcca gcagcttgtc accacggacg cttcctcgtg cgctgctcgc gtggcacccg 300
ccccgctttc cagcgtgctc cgcgcgggcc gcggccgcaa atcgcagacc caacacgcca 360
cccgccaggg ggccggttcgt acgtaccgcg ccctcgtgta aagccgccgc cgctcgtcgc 420
gtcccccgct cgcggccatt t
441

```

<210> 11  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

```

<400> 11
ctgctggaca ggatatggaa
20

```

<210> 12  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

```

<400> 12
tcgcgctgca gggcctcctt
20

```

<210> 13  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

09899595 "070501

<220>

<223> Description of Artificial Sequence: -

<400> 13

tcacgtggat tctgcaacct c

21

<210> 14

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 14

caggacggac catggcggcg gccgggat

28

<210> 15

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 15

cgccgccatg gtcggtcctg tagaaaccc

29

<210> 16

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 16

gtgatgtcag cgttgaactg c

21

09899595-070501